Permit Fact Sheet

General Information

<table>
<tr><td>Permit Number:</td><td colspan="2">WI-0021733-10-0</td></tr>
<tr><td>Permittee Name:</td><td colspan="2">Village of Kewaskum</td></tr>
<tr><td>Address:</td><td colspan="2">204 First St PO Box 38</td></tr>
<tr><td>City/State/Zip:</td><td colspan="2">Kewaskum WI 53040</td></tr>
<tr><td>Discharge Location:</td><td colspan="2">West bank of the Milwaukee River, ½ mile downstream of the Kewaskum dam, SW ¼ of SW ¼ of Section 10, T12N, R19E</td></tr>
<tr><td>Receiving Water:</td><td colspan="2">Milwaukee River (East/West Branch Milwaukee River Watershed, Milwaukee River Basin) in Washington County</td></tr>
<tr><td>Stream Flow ($Q_{7,10}$):</td><td colspan="2">Annual 7Q10 of the Milwaukee River at the discharge is 7.4 cfs. Monthly low flows have been obtained by Kewaskum from the USGS. See table below for monthly flows.
<table>
<tr><td></td><td>Jan</td><td>Feb</td><td>Mar</td><td>Apr</td><td>May</td><td>Jun</td><td>Jul</td><td>Aug</td><td>Sep</td><td>Oct</td><td>Nov</td><td>Dec</td></tr>
<tr><td>7-Q_{10} (cfs)</td><td>12</td><td>12</td><td>19</td><td>32</td><td>17</td><td>12</td><td>6.6</td><td>9.0</td><td>8.2</td><td>10</td><td>15</td><td>14</td></tr>
</table></td></tr>
<tr><td>Stream Classification:</td><td colspan="2">Warm Water Sport Fish, non-public water supply (Coldwater and Public Water Supply criteria are used for bioaccumulating compounds of concern, because the discharge is within the Great Lakes basin)</td></tr>
<tr><td rowspan="4">Design Flow(s)</td><td>Daily Maximum</td><td>2.68 MGD (facility improvement design report – 2026 design year)</td></tr>
<tr><td>Weekly Maximum</td><td>Not available</td></tr>
<tr><td>Monthly Maximum</td><td>1.21 MGD (facility improvement design report – 2026 design year)</td></tr>
<tr><td>Annual Average</td><td>0.75 MGD (facility improvement design report – 2026 design year)</td></tr>
<tr><td>Significant Industrial Loading?</td><td colspan="2">Kewaskum Foods (slaughter and meat processing), and Family Dairies (milk transfer station)</td></tr>
<tr><td>Operator at Proper Grade?</td><td colspan="2">Yes, the Operator-in-Charge holds an Advanced classification in subclasses A1, B, C, D, L, P and SS. The facility is an Advanced plant in subclasses A1, B, C, D, L, P and SS</td></tr>
<tr><td>Approved Pretreatment Program?</td><td colspan="2">Not applicable</td></tr>
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Facility Description

The Village of Kewaskum operates a 0.75 MGD average annual design flow, activated sludge plant originally built in 1955. The plant was upgraded in 1971 and a major upgrade was completed again in 2009. The plant serves an approximate population of 4000 people. All wastewater flow is pumped to the plant. The treatment process includes fine screening, grit removal, two primary clarifiers, three aeration tanks (in series), three final clarifiers, and ultraviolet disinfection. The final effluent passes through a re-aeration manhole before being discharged to the Milwaukee River. Ferrous chloride is added prior to the primary and secondary clarifiers to aid in phosphorus removal. Biosolids are aerobically digested in three tanks and stored onsite in a 1.1-million-gallon tank before being hauled offsite and land applied by a licensed contract hauler onto Department approved agricultural fields.

Substantial Compliance Determination

After a desk top review of all discharge monitoring reports, CMARs, land app reports, compliance schedule items, and a site visit on September 13, 2021, this facility has been found to be in substantial compliance with their current permit.

Sample Point Designation		
Sample Point Number	**Discharge Flow, Units, and Averaging Period**	**Sample Point Location, WasteType/sample Contents and Treatment Description (as applicable)**
701	0.46 (April 2017 – October 2021)	INFLUENT: 24-hour flow proportional composite sampler intake located in the influent chamber inside the headworks building, before screening. Samples include sidestream flows.
001	0.50 (April 2017 – October 2021)	EFFLUENT: 24-hour flow proportional composite sampler intake located at a point immediately before the UV disinfection system. Grab samples shall be collected after UV disinfection system.
002	68 dry U.S. Tons (2021 permit application)	Class B, aerobically digested, liquid sludge. Representative samples for analysis shall be collected from the discharge end of the sludge mixing/loading pump.

1 Influent - Proposed Monitoring

1.1 Sample Point Number: 701- INFLUENT TO PLANT

Monitoring Requirements and Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
Flow Rate		MGD	Daily	Continuous	
BOD5, Total		mg/L	3/Week	24-Hr Flow Prop Comp	
Suspended Solids, Total		mg/L	3/Week	24-Hr Flow Prop Comp	

1.1.1 Changes from Previous Permit:

Influent monitoring requirements were re-evaluated for the proposed permit term and no changes are needed from the previous permit.

1.1.2 Explanation of Monitoring Requirements

BOD_5 and Total Suspended Solids: Tracking of BOD_5 and Suspended Solids are required for percent removal requirements found in s. NR 210.05, Wis. Adm. Code and in the Standard Requirements section of the permit. Taking into consideration guidance and requirements in administrative code, influent monitoring frequencies for Kewaskum's permit were determined to be appropriate for pollutants that have final effluent limits in effect during this permit term.

Sample location: Influent samples currently include sidestream flows. The facility continues to receive high grades on the influent section of the CMAR, does not receive a large volume of hauled waste or septage, and continues to achieve 85% removal of BOD and TSS. Therefore, no changes need to be made to the sample location.

2 Surface Water - Proposed Monitoring and Limitations

2.1 Sample Point Number: 001- EFFLUENT

Monitoring Requirements and Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
Flow Rate		MGD	Daily	Continuous	
BOD5, Total	Weekly Avg	18 mg/L	3/Week	24-Hr Flow Prop Comp	Limit effective November - April.
BOD5, Total	Weekly Avg	10 mg/L	3/Week	24-Hr Flow Prop Comp	Limit effective May - October.
BOD5, Total	Monthly Avg	18 mg/L	3/Week	24-Hr Flow Prop Comp	Limit effective November - April.
BOD5, Total	Monthly Avg	10 mg/L	3/Week	24-Hr Flow Prop Comp	Limit effective May - October.
BOD5, Total	Weekly Avg	113 lbs/day	3/Week	Calculated	Limit effective November - April. Mass shall be calculated using the daily concentration (mg/L) x daily flow (MGD) x 8.34.
BOD5, Total	Weekly Avg	63 lbs/day	3/Week	Calculated	Limit effective May - October. Mass shall be calculated using the daily concentration (mg/L) x daily flow (MGD) x 8.34.
Suspended Solids, Total	Weekly Avg	18 mg/L	3/Week	24-Hr Flow Prop Comp	Limit effective November - March.
Suspended Solids, Total	Weekly Avg	12 mg/L	3/Week	24-Hr Flow Prop Comp	Limit effective in April.
Suspended Solids, Total	Weekly Avg	10 mg/L	3/Week	24-Hr Flow Prop Comp	Limit effective May - October.
Suspended Solids, Total	Monthly Avg	12 mg/L	3/Week	24-Hr Flow Prop Comp	Limit effective November - April.
Suspended Solids, Total	Monthly Avg	10 mg/L	3/Week	24-Hr Flow Prop Comp	Limit effective May - October.
Suspended Solids, Total	Weekly Avg	108 lbs/day	3/Week	Calculated	Limit effective in January.

Monitoring Requirements and Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
Suspended Solids, Total	Weekly Avg	88.4 lbs/day	3/Week	Calculated	Limit effective in February.
Suspended Solids, Total	Weekly Avg	77.4 lbs/day	3/Week	Calculated	Limit effective in March.
Suspended Solids, Total	Weekly Avg	113 lbs/day	3/Week	Calculated	Limit effective April, November, and December.
Suspended Solids, Total	Weekly Avg	63 lbs/day	3/Week	Calculated	Limit effective May - October.
Dissolved Oxygen	Daily Min	6.0 mg/L	3/Week	Grab	
pH Field	Daily Max	9.0 su	3/Week	Grab	
pH Field	Daily Min	6.0 su	3/Week	Grab	
E. coli	Geometric Mean - Monthly	126 #/100 ml	Weekly	Grab	Limit effective May - September annually.
E. coli	% Exceedance	10 Percent	Monthly	Calculated	Limit effective May - September annually. See the E. coli Percent Limit section below. Enter the results in the DMR on the last day of the month.
Nitrogen, Ammonia (NH3-N) Total	Daily Max	24 mg/L	Weekly	24-Hr Flow Prop Comp	Limit effective November - April.
Nitrogen, Ammonia (NH3-N) Total	Weekly Avg	14.3 mg/L	Weekly	24-Hr Flow Prop Comp	Limit effective November - March.
Nitrogen, Ammonia (NH3-N) Total	Weekly Avg	8.8 mg/L	Weekly	24-Hr Flow Prop Comp	Limit effective in April.
Nitrogen, Ammonia (NH3-N) Total	Weekly Avg	6.4 mg/L	Weekly	24-Hr Flow Prop Comp	Limit effective May - October.
Nitrogen, Ammonia (NH3-N) Total	Monthly Avg	11.5 mg/L	Weekly	24-Hr Flow Prop Comp	Limit effective November - March.
Nitrogen, Ammonia (NH3-N) Total	Monthly Avg	7.1 mg/L	Weekly	24-Hr Flow Prop Comp	Limit effective in April.
Nitrogen, Ammonia (NH3-N) Total	Monthly Avg	6.4 mg/L	Weekly	24-Hr Flow Prop Comp	Limit effective May - October.
Phosphorus, Total	Monthly Avg	0.8 mg/L	3/Week	24-Hr Flow Prop Comp	This is an interim MDV limit. See the MDV/Phosphorus sections below and the Phosphorus

Monitoring Requirements and Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
					schedules.
Phosphorus, Total		lbs/month	Monthly	Calculated	Report the total monthly phosphorus discharged in lbs/month on the last day of the month on the DMR. See Standard Requirements for 'Appropriate Formulas' to calculate the Total Monthly Discharge in lbs/month.
Phosphorus, Total		lbs/yr	Annual	Calculated	Report the sum of the total monthly discharges (for the months that the MDV is in effect) for the calendar year on the Annual report form.
Nitrogen, Total Kjeldahl		mg/L	See Listed Qtr(s)	24-Hr Flow Prop Comp	Annual in rotating quarters. See Nitrogen Series Monitoring section below.
Nitrogen, Nitrite + Nitrate Total		mg/L	See Listed Qtr(s)	24-Hr Flow Prop Comp	Annual in rotating quarters. See Nitrogen Series Monitoring section below.
Nitrogen, Total		mg/L	See Listed Qtr(s)	Calculated	Annual in rotating quarters. See Nitrogen Series Monitoring section below. Total Nitrogen shall be calculated as the sum of reported values for Total Kjeldahl Nitrogen and Total Nitrite + Nitrate Nitrogen.
Chloride		mg/L	4/Month	24-Hr Flow Prop Comp	Monitoring in calendar year 2025 (January 1- December 31). Sampling shall be conducted on four consecutive days each month.
Chloride		lbs/day	4/Month	Calculated	Reporting in calendar year 2025 (January 1 - December 31). Calculate the daily mass discharge of chloride in lbs/day on the same days chloride sampling occurs.

Monitoring Requirements and Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
Temperature Maximum		deg F	3/Week	Continuous	Monitoring in calendar year 2025 (January 1 - December 31). See Temperature section below.
Acute WET		TUa	See Listed Qtr(s)	24-Hr Flow Prop Comp	Twice during the permit term. See "WET" section below.
Chronic WET	Monthly Avg	1.4 TUc	See Listed Qtr(s)	24-Hr Flow Prop Comp	Annually in rotating quarters. See "WET" section below.

2.1.1 Changes from Previous Permit

Effluent limitations and monitoring requirements were re-evaluated for the proposed permit term and the following changes were made from the previous permit;

- **Total Suspended Solids:** Effluent concentration limits were updated to meet requirements of the TMDL. The previous weekly average concentration limit for April was lowered to 12 mg/L and the monthly average limit of 18 mg/L for November – April was lowered to 12 mg/L. Mass limits for the months of January, February, and March were also updated to meet TMDL requirements.
- **Dissolved Oxygen:** Sample type updated from continuous to grab.
- **Fecal Coliform and E. coli:** Fecal coliform monitoring and limits have been replaced with Escherichia coli (E. coli) monitoring and limits. E. coli monitoring and limits become effective on May 1, 2022. E. coli limits of 126 #/100ml as a monthly geometric mean that may never be exceeded, and 410 #/100 ml as a daily maximum that may not be exceeded more than 10 percent of the time in any calendar month, will apply.
- **Total Ammonia Nitrogen:** The monthly average limit for May – October is reduced from 8.1 mg/L to 6.4 mg/L.
- **Total Nitrogen Monitoring (TKN, N02+N03 and Total N):** Annual monitoring in rotating quarters throughout the permit term was added to the proposed permit.
- **Phosphorus:** The new final TMDL-derived water quality-based effluent limits were added to the proposed permit and are listed in section 2.2.1.3 of the permit. The limits were to become effective during the proposed permit term, however, the permittee has applied for a multi-discharger variance (MDV) for phosphorus and the application has been approved by the Department. An MDV interim limit of 0.8 mg/L is included and the permittee is now required to report the total amount of phosphorus discharged in lbs/month and lbs/year. By March 1 of each year, the permittee shall make a payment(s) to participating county(s) of $58.85 per pound of phosphorus discharged during the previous year in excess of the target value of 0.2 mg/L.
- **Chloride:** Monitoring only in the fourth year of the proposed permit.

2.1.2 Explanation of Limits and Monitoring Requirements

Monitoring Frequencies

Taking into consideration guidance and requirements in administrative code, effluent monitoring frequencies for Kewaskum's permit were determined to be appropriate for pollutants that have final effluent limits in effect during this permit term with the exception of Ammonia. The permittee requested a reduction in Ammonia monitoring from 3/Week

to Weekly with the previous permit application. The department granted the reduction to weekly in the previous permit and agrees it is feasible to maintain the current weekly sample frequency for the proposed permit term based on plant performance, high effluent quality and low variability. The department also evaluated the permittee's request in the current permit application to reduce Ammonia sampling even further from weekly to monthly. At this time the department does not feel it is appropriate to reduce the sample frequency further since there are weekly average and daily maximum limits in effect for Ammonia.

Categorical Limits

- **BOD, Total Suspended Solids, Dissolved Oxygen, and pH:** Standard municipal wastewater requirements for BOD_5, total suspended solids, dissolved oxygen, and pH are included based on ch. NR 210, Wis. Adm. Code 'Sewage Treatment Works' requirements for discharges to fish and aquatic life streams. Chapter NR 102, Wis. Adm. Code 'Water Quality Standards for Surface Waters' also specifies requirements for pH for fish and aquatic life streams.

Water Quality Based Limits and WET Requirements

Refer to the "Water Quality-Based Effluent Limitations for the Village of Kewaskum", prepared by Nicole Krueger, dated December 7, 2021, updated February 1, 2022 and used for this reissuance.

- **Total Suspended Solids:** Consistent with Section 6.4.1 of the approved Milwaukee River TMDL Report a monthly average limit of 12 mg/L (November - April) and a weekly average limit of 12 mg/L (April) are included in the proposed permit. Mass limits for the months of January, February, and March are updated to 108 lbs/day, 88.4 lbs/day, and 77.4 lbs/day respectively. See pages 10-12 of the December 7, 2021 (updated 02/01/2022) WQBEL memo for the Village of Kewaskum for a more detailed explanation of TSS TMDL limit requirements.
- **E. Coli:** Revisions to bacteria surface water quality criteria to protect recreational uses and accompanying E. coli WPDES permit implementation procedures became effective May 1, 2020. The new rule requires that WPDES permits for facilities with required disinfection include monitoring for E. coli while facilities are disinfecting during the recreation period and establish effluent limitations for E. coli established in s. NR 210.06 (2), Wis. Adm. Code. The administrative code rule changes included the following actions: revised the bacteria water quality criteria from fecal coliform to E. coli to protect recreation in ch. NR 102, Wis. Adm. Code; removed fecal coliform criteria for certain individual waters from ch. NR 104, Wis. Adm. Code; revised permit requirements for publicly and privately owned sewage treatment works in ch. NR 210, Wis. Adm. Code; and updated approved analytical methods for bacteria in ch. NR 219, Wis. Adm. Code.
- **Total Ammonia Nitrogen:** Current acute and chronic ammonia toxicity criteria for the protection of aquatic life are included in Table 2C and Table 4B of ch. NR 105, Wis. Adm. Code (effective March 1, 2004). Subchapter IV of ch. NR 106 establishes procedures for calculating water quality-based effluent limitations (WQBELs) for ammonia (effective March 1, 2004). The current daily maximum, weekly average and monthly average ammonia limits are retained in the proposed permit except the monthly average limit from May – October was reduced to 6.4 mg/L to match the weekly average limit. Based on a review of the data submitted, sample frequency remains at a reduced frequency of Weekly.
- **Phosphorus**: Phosphorus rules became effective December 1, 2010 per NR 217, Wis. Adm. Code, that required the permittee to comply with water quality based effluent limits (WQBELs) for total phosphorous. The December 7, 2021 (updated February 1, 2022) "Water-Quality Based Effluent Limitations for the Village of Kewaskum" memo presents recommendations for total phosphorus WQBELs derived from the Waste Load Allocations (WLAs) for the Kewaskum WWTF in the approved Total Maximum Daily Load (TMDL) for Total Phosphorus, Total Suspended Solids, and Fecal Coliforms for the Milwaukee River Basin, was approved by US EPA in March 2018. The final TMDL-derived WQBELs for phosphorus, were to become effective as scheduled unless a variance was granted. For this permit term, the permittee has applied for the Multi-Discharger Variance (MDV) for phosphorus as provided for in s. 283.16, Wis. Stats., and approved by USEPA on February 6, 2017 until February 6, 2027. The permittee qualifies for the MDV because it is an existing source and a major facility upgrade is needed to comply with the applicable phosphorus WQBELs, thereby creating a financial burden.

Conditions of the MDV require the permittee to optimize phosphorus removal throughout the proposed permit term, comply with interim limits and make annual payments to participating county(s) by March 1 of each year based on the pounds of phosphorus discharged during the previous year in excess of the specified target value of 0.2 mg/L. The "price per pound" value is $50.00 adjusted for CPI annually during the first quarter as defined by s. 283.16(8)(a)2, Wis. Stats and takes effect for reissued permits with effective dates starting April 1. This may differ from the "price per pound" that is public noticed; however, the "price per pound" is set upon reissuance and is applicable for the entire permit term. The participating counties use these payments to implement non-point source (agricultural and urban) phosphorus control strategies at the watershed level.

- **Total Nitrogen Monitoring (NO2+NO3, TKN and Total N):** The Department has included effluent monitoring for Total Nitrogen in the permit through the authority under §§ 283.55(1)(e), Wis. Stats., which allows the department to require the permittee to submit information necessary to identify the type and quantity of any pollutants discharged from the point source, and through s. NR 200.065(1)(h), Wis. Adm. Code, which allows for this monitoring to be collected during the permit term. More information on the justification to include total nitrogen monitoring in wastewater permits can be found in the "Guidance for Total Nitrogen Monitoring in Wastewater Permits" dated October 1, 2019. Annual tests are scheduled in the following rotating quarters: *July – September 2022; January – March 2023; April – June 2024; October – December 2025; July – September 2026*

- **Chloride:** Using the updated annual 7Q10, the calculated weekly average limit is 1025 mg/L. When the representative data is compared to the calculated limits, the data shows there is no reasonable potential for Kewaskum to exceed the calculated limits. Therefore, no chloride limits are included in the proposed permit. However, Kewaskum should continue to implement chloride source reduction measures and monitor effluent chloride concentrations for four consecutive days per month in calendar year 2025 (January 1 – December 31) of the proposed permit.

- **Temperature Maximum:** Based on the temperature data submitted by the Village of Kewaskum from August 2014 through October 2021, there is no reasonable potential for the discharge to exceed the calculated daily maximum or weekly average limits calculated for a given month. Temperature maximum monitoring is included in fourth calendar year of the permit (January 1, 2025 – December 31, 2025) and will be used for the next permit reissuance.

- **Whole Effluent Toxicity (WET):** Whole effluent toxicity (WET) testing requirements are determined in accordance with ss. NR 106.08 and NR 106.09 Wis. Adm. Code, as revised August 2016. (See the current version of the Whole Effluent Toxicity Program Guidance Document and checklist and WET information, guidance and test methods at http://dnr.wi.gov/topic/wastewater/wet.html).

  Based upon the chronic WET test failure which occurred in late 2012 and the other toxicity detects to test species, a monthly average chronic WET limit of 1.4 TUc and annual monitoring is retained in the proposed permit. See page 16 of the WQBEL memo for additional discussion. Additionally, there have been no Acute WET testing failures during the existing permit term and there is no reasonable potential to include an acute WET limit in the reissued permit. Therefore, the twice per permit term acute WET tests are retained in the proposed permit. Acute WET test are scheduled in the following quarters: *January – March 2023 and July – September 2026* and Chronic WET tests are scheduled in the following rotating quarters: *July – September 2022; January – March 2023; April – June 2024; October – December 2025; July – September 2026*.

3 Land Application - Proposed Monitoring and Limitations

Municipal Sludge Description						
Sample Point	**Sludge Class (A or B)**	**Sludge Type (Liquid or Cake)**	**Pathogen Reduction Method**	**Vector Attraction Method**	**Reuse Option**	**Amount Reused/Disposed (Dry Tons/Year)**
002		Liquid				
Does sludge management demonstrate compliance? **Yes**						
Is additional sludge storage required? **No**						
Is Radium-226 present in the water supply at a level greater than 2 pCi/liter? **No**						
Is a priority pollutant scan required? **No** Priority pollutant scans are required once every 10 years at facilities with design flows between 5 MGD and 40 MGD, and once every 5 years if design flow is greater than 40 MGD.						

3.1 Sample Point Number: 002- Sludge

Monitoring Requirements and Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
Solids, Total		Percent	Annual	Composite	See permit section 3.2.1.1
Arsenic Dry Wt	Ceiling	75 mg/kg	Annual	Composite	See permit section 3.2.1.1
Arsenic Dry Wt	High Quality	41 mg/kg	Annual	Composite	See permit section 3.2.1.1
Cadmium Dry Wt	Ceiling	85 mg/kg	Annual	Composite	See permit section 3.2.1.1
Cadmium Dry Wt	High Quality	39 mg/kg	Annual	Composite	See permit section 3.2.1.1
Copper Dry Wt	Ceiling	4,300 mg/kg	Annual	Composite	See permit section 3.2.1.1
Copper Dry Wt	High Quality	1,500 mg/kg	Annual	Composite	See permit section 3.2.1.1
Lead Dry Wt	Ceiling	840 mg/kg	Annual	Composite	See permit section 3.2.1.1
Lead Dry Wt	High Quality	300 mg/kg	Annual	Composite	See permit section 3.2.1.1
Mercury Dry Wt	Ceiling	57 mg/kg	Annual	Composite	See permit section 3.2.1.1
Mercury Dry Wt	High Quality	17 mg/kg	Annual	Composite	See permit section 3.2.1.1
Molybdenum Dry Wt	Ceiling	75 mg/kg	Annual	Composite	See permit section 3.2.1.1
Nickel Dry Wt	Ceiling	420 mg/kg	Annual	Composite	See permit section 3.2.1.1
Nickel Dry Wt	High Quality	420 mg/kg	Annual	Composite	See permit section 3.2.1.1
Selenium Dry Wt	Ceiling	100 mg/kg	Annual	Composite	See permit section 3.2.1.1
Selenium Dry Wt	High Quality	100 mg/kg	Annual	Composite	See permit section 3.2.1.1
Zinc Dry Wt	Ceiling	7,500 mg/kg	Annual	Composite	See permit section 3.2.1.1

Monitoring Requirements and Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
Zinc Dry Wt	High Quality	2,800 mg/kg	Annual	Composite	See permit section 3.2.1.1
Nitrogen, Total Kjeldahl		Percent	Annual	Composite	See permit section 3.2.1.1
Nitrogen, Ammonium (NH4-N) Total		Percent	Annual	Composite	See permit section 3.2.1.1
Phosphorus, Total		Percent	Annual	Composite	See permit section 3.2.1.1
Phosphorus, Water Extractable		% of Tot P	Annual	Composite	See permit section 3.2.1.1
Potassium, Total Recoverable		Percent	Annual	Composite	See permit section 3.2.1.1
PCB Total Dry Wt	Ceiling	50 mg/kg	Once	Composite	Once in 2023. See PCB permit section.
PCB Total Dry Wt	High Quality	10 mg/kg	Once	Composite	Once in 2023. See PCB permit section.

3.1.1 Changes from Previous Permit:

Land application limits and monitoring requirements were re-evaluated for the proposed permit term and no changes are needed from the previous permit.

3.1.2 Explanation of Limits and Monitoring Requirements

Requirements for land application of municipal sludge are determined in accordance with ch. NR 204, Wis. Adm. Code. Ceiling and high-quality limits for metals in sludge are specified in s. NR 204.07(5). Requirements for pathogens are specified in s. NR 204.07(6) and in s. NR 204.07(7) for vector attraction requirements. Limitations for PCBs are addressed in s. NR 204.07(3)(k). Land application of waste shall be done in accordance with the permit conditions and applicable codes. All land application sites shall be approved prior to their use. To receive a list of approved sites, or to be notified of potential approvals, contact the WDNR compliance staff.

4 Schedules

4.1 Phosphorus Schedule - Continued Optimization

The permittee is required to optimize performance to control phosphorus discharges per the following schedule.

Required Action	Due Date
Optimization: The permittee shall continue to implement the optimization plan as previously approved to optimize performance to control phosphorus discharges. Submit a progress report on optimizing removal of phosphorus by the Due Date.	03/31/2023
Progress Report #2: Submit a progress report on optimizing removal of phosphorus.	03/31/2024
Progress Report #3: Submit a progress report on optimizing removal of phosphorus.	03/31/2025
Progress Report #4: Submit a progress report on optimizing removal of phosphorus.	03/31/2026

4.1.1 Explanation of Schedule

Continued Optimization

Per s. 283.16(6)(a), Wis. Stats. the Department may include a requirement that the permittee optimize the performance of a point source in controlling phosphorus discharges, which may be necessary to achieve compliance with multi-discharger variance interim limits. This compliance schedule requires the permittee to continue to implement the optimization plan that was approved during the previous permit term.

4.2 Phosphorus Payment per Pound to County

The permittee is required to make annual payments for phosphorus reductions to the participating county or counties in accordance with s. 283.16(8), Wis. Stats, and the following schedule. The price per pound will be set at the time of permit reissuance and will apply for the duration of the permit.

Required Action	Due Date
Annual Verification of Phosphorus Payment to County: The permittee shall make a total payment to the participating county or counties approved by the Department by March 1 of each calendar year. The amount due is equal to the following: [(lbs of phosphorus discharged minus the permittee's target value) times ($58.85 per pound)] or $640,000, whichever is less. See the payment calculation steps in the Surface Water section. The permittee shall submit Form 3200-151 to the Department by March 1 of each calendar year indicating total amount remitted to the participating counties to verify that the correct payment was made. The first payment verification form is due by the specified Due Date. Note: The applicable Target Value is 0.2 mg/L as defined by s. 283.16(1)(h), Wis. Stats. The "per pound" value is $50.00 adjusted for CPI.	03/01/2023
Annual Verification of Payment #2: Submit Form 3200-151 to the Department indicating total amount remitted to the participating counties.	03/01/2024
Annual Verification of Payment #3: Submit Form 3200-151 to the Department indicating total amount remitted to the participating counties.	03/01/2025
Annual Verification of Payment #4: Submit Form 3200-151 to the Department indicating total amount remitted to the participating counties.	03/01/2026
Continued Coverage: If the permittee intends to seek a renewed variance, an application for the MDV (Multi Discharger Variance) shall be submitted as part of the application for permit reissuance in accordance with s. 283.16(4)(b), Wis. Stats.	
Annual Verification of Payment After Permit Expiration: In the event that this permit is not reissued prior to the expiration date, the permittee shall continue to submit Form 3200-151 to the Department indicating total amount remitted to the participating counties by March 1 each year.	

4.2.1 Explanation of Schedule

County Payment

Subsection 283.16(6)(b), Wis. Stats., requires permittees that have received approval for the multi-discharger variance (MDV) to implement a watershed project that is designed to reduce non-point sources of phosphorus within the HUC 8 watershed in which the permittee is located. The permittee has selected the "Payment to Counties" watershed option described in s. 283.16(8), Wis. Stats. Under this option the permittee shall make annual payment(s) to participating county(s) that are calculated based on the amount of phosphorus actually discharged during a calendar year in pounds per year less the amount of phosphorus that would have been discharged had the permittee discharged phosphorus at a target

value concentration of 0.2 mg/L. The pounds of phosphorus discharged in excess of the target value is multiplied by a per pound phosphorus charge that will equal **$58.85** per pound. This schedule requires the permittee to submit Form 3200-151 to the Department indicating the total amount remitted to the participating county(s).

Attachments:

Water Quality Based Effluent Limitations for the Village of Kewaskum dated December 7, 2021 (updated February 1, 2022) and prepared by Nicole Krueger

Proposed Expiration Date:

December 31, 2026

Note: The proposed permit term is shortened by 3 months in order to satisfy conditions of the EPA approved phosphorus multi-discharger variance, which is currently set to expire on February 6, 2027.

Justification of Any Waivers From Permit Application Requirements

Based on an evaluation of historic data collected during previous permit reissuances, the permittee was granted a waiver to reduce the number of copper samples from 11 to 4. In accordance with Table 1 in s. NR 200.065, Wis. Adm. Code, a minimum of 4 samples are needed for the permit reissuance process. No other waivers were given.

Prepared By:

Laura Dietrich - WDNR Advanced Wastewater Specialist

Date: February 8, 2022